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TECHNICAL HANDBOOK FOR  
ENVIRONMENTAL HEALTH AND ENGINEERING  
VOLUME I - ADMINISTRATION  
**PART 1 - ADMINISTRATION AND MANAGEMENT**

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**CHAPTER 1-2 - TECHNICAL HANDBOOK IMPLEMENTATION**

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**1-2.1 PURPOSE**

The environmental health and engineering program (EHE), Indian Health Service (IHS), routinely develops guidelines and procedures related to various environmental health and engineering topics. These guidance are compiled in a comprehensive Technical Handbook for Environmental Health and Engineering in an organized form for easy reference and use. This Chapter sets forth pertinent information regarding the organization, development, maintenance, and distribution of the handbook.

**1-2.2 SCOPE OF THE HANDBOOK**

The Technical Handbook for Environmental Health and Engineering consists of a series of separately issued "volumes". Each volume deals with a specific EHE program function. The volumes are as follows:

- A. Volume I - Administration provides information concerning EHE organization, mission, goals and objectives, data information systems, reporting systems, automation, and other general environmental health and engineering activities.
- B. Volume II - Health Care Facilities Planning provides information and guidance concerning requirements for validation of workload, justification of program needs, project prioritization, space planning criteria, staffing, operating costs, site selection, land acquisition, and other information necessary for the approval of health care facilities construction and for development of cost estimates for inclusion in IHS budget requests.
- C. Volume III - Health Care Facilities Design and Construction provides guidance and procedures for the design and construction of health care facilities and quarters. Included are requirements for feasibility studies, conceptual designs, preliminary designs, drawings and specifications, contract bidding documents, and to secure architect/engineer services.
- D. Volume IV - Real Property provides information and guidance on procedures to direct, coordinate, and evaluate real property programs. This includes accountability activities for federally owned real property and IHS direct leased space. It also discusses workplace management and provides technical

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interpretation of the laws, regulations, policies, procedures, and practices in real property management.

- E. Volume V - Clinical Engineering provides procedures and practices in the application of clinical engineering technology to support direct patient care. It addresses the requirements for clinical equipment inspections, tests, calibrations, repairs, hazard/recall/alert notification, preventive maintenance, and electrical safety. It also discusses user training for the safe use and application of medical devices, and the selection and evaluation process for purchasing clinical equipment.
- F. Volume VI - Facilities Engineering provides procedures, practices, and technical requirements to follow in planning, coordinating, and implementing day to day operations of facilities maintenance and repair programs. Topics include heating, ventilation, preventive maintenance, energy conservation, repairs and improvements to real property and non-clinical personal property, and operation of steam, air conditioning, water, and sewage plants.
- G. Volume VII - Sanitation Facilities provides procedures, practices, and technical requirements for planning, design and construction of sanitation facilities.
- H. Volume VIII - Environmental Health Services provides procedures, practices, and processes for planning and implementing a comprehensive community-based environmental health services program.
- I. Volume IX - Environmental Management provides procedures, practices, and processes for providing management support for EHE headquarters and Area operations.
- J. Volume X Engineering Services provides procedures, processes and practices for the engineering services offices.

Within each volume, related "parts" are grouped into appropriate subject categories. Chapters are used to further subdivide parts into related topics.

### **1-2.3 AUTHORIZED FORMS OF ISSUANCES**

All information distributed in the handbook (Volumes I through IX), including changes and transmittal notices, shall be issued by the Associate Director, EHE, IHS. The types of issuances are as follows.

- A. Handbook Issuances - Handbook issuances provide information, interpretation, guidance, and procedures related to the IHS health facilities engineering program. Collectively, they comprise the nine volumes of the handbook. Each issuance will be issued as complete part(s) or chapter(s). Pages will be dated and include the transmittal notice number on each page.

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- C. Changes - Changes are issued to amend, modify, replace, expand, clarify, or cancel material previously issued in the handbook. Changes will be dated and include the transmittal notice number on each page.
- D. Transmittal Notices - All handbook issuances and subsequent changes will be issued by transmittal notice. Since the transmittal notices will be numbered consecutively, any gaps in the numbers will indicate missing issuances which can be obtained from Headquarters EHE, or the appropriate Area Office. Transmittal notices should be filed in reverse chronological order behind TAB B of Volume I of the handbook. Memoranda will serve as their own transmittal notice and may be removed from the file after appropriate changes are issued by a transmittal notice. Exhibit 1 presents the format of a sample transmittal notice which includes the following information:
- Transmittal notice number - This number is used to track all supplements and changes issued to the handbook. Transmittal notices issued during and after FY 1994 are numbered sequentially beginning with 1. Transmittal notices issued before FY 1994 are numbered sequentially within each fiscal year and for each volume.
  - Background - Provides a brief explanation of the material attached to the transmittal notice, and the date and signature of the issuing authority.
  - Material transmitted - Lists the title and referencing sequence (i.e., volume, part, chapter, section, page, etc.) of the material attached.
  - Pen and ink changes - Instructions are given for minor corrections or changes to the handbook which are easily accomplished by a pen and ink edit. This section is omitted if there are no such changes.
  - Material superseded - Lists the title and referencing sequence (i.e., volume, part, chapter, section, page, etc.) of handbook material (including appropriate transmittal notices) superseded by this transmittal notice. If no material is canceled, it is indicated by stating "none".
  - Handbook maintenance - Lists the instructions concerning additions, deletions, and other pertinent handbook maintenance information.

#### **1-2.4 DISTRIBUTION OF ISSUANCES**

The originating branch or division is responsible for the preparation of handbook issuances, including supplements and changes. Division Directors are responsible for assuring that appropriate personnel have

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an opportunity to review and comment on draft handbook materials before they are released as final handbook issuances. Comments concerning existing handbook issuances are encouraged and should be sent in writing to the appropriate division Director.

To control handbook distribution, the Program Development Branch, DFPC, shall distribute the handbook, and all subsequent supplements and changes thereto, to the following key Area and Program offices:

- Associate Director, EHE, at each IHS Area Office;
- Facilities Engineer at each IHS Area Office;
- Director, Sanitation Facilities Construction, at each Area Office;
- Director, Environmental Health Services, at each Area Office;
- Clinical Engineer at each Area Office
- Real Property Officer at each Area Office
- Health Facilities Planner at each Area Office;
- Director, Environmental Management Branch, Headquarters West, Albuquerque, one copy;
- Director, Engineering Services, Dallas;
- Director, Engineering Services, Seattle;
- Manager of health programs IHS Headquarters East;
- Manager of planning
- Manager of the environmental health program, Headquarters
- Division Director, Division of Facilities Management, EHE, IHS;
- Division Director, Division of Facilities Planning and Construction, EHE, IHS;
- Division Director, Division of Environmental Health, EHE, IHS; and
- all EHE Branch Chiefs at IHS Headquarters East.

It is the responsibility of the Area/Program offices to distribute applicable handbook parts to other offices as determined necessary, e.g., to Service Units, tribes, and other programs. The Headquarters division directors specifically are responsible for ensuring that copies of the Handbook are distributed to other IHS programs that may require them.

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**EXHIBIT 1 - TRANSMITTAL NOTICE**

TRANSMITTAL NOTICE

TN - 2

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BACKGROUND:

This supplement establishes "Part 3 - Technical Handbook Implementation", in Volume I of the Technical Handbook for Environmental Health and Engineering.

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Date

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[NAME]

Assistant Surgeon General  
Associate Director, OEHE

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MATERIAL TRANSMITTED

1. Part 3 - Technical Handbook Implementation
2. Revised Master Table of Contents dated 1/30/92

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PEN AND INK CHANGES

(Insert instructions for minor corrections. Omit this section if there are none to be made by this notice.)

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MATERIAL SUPERSEDED

1. Master Table of Contents dated 1/13/92

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HANDBOOK MAINTENANCE

1. Insert Part 3 in Volume I behind the "Part 3" divider.
  2. Make 5 copies of the new Master Table of Contents.
  3. Replace the Master Table of Contents at the front of each Volume with the amended version.
  4. Place this notice in Volume I behind TAB B.
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### 1-2.5 HANDBOOK FORMAT

The format of this handbook issuance (Chapter 1-2) is illustrative of the format to be utilized throughout the handbook. This format is intended to be consistent with popular microcomputer word processing programs, e.g., WordPerfect.

- A. Referencing System - The referencing system used for the handbook (as illustrated in this issuance) is identified by numeric and alpha designations in the following declension and form:

Volume I

Part 1

Chapter 1 (Large, Bold, Underline)

1-2.3 Section 3 of Chapter 2, Part 1 (Large Bold)

A. First level subdivision of a section

(1) Second level subdivision

a. Third level subdivision

● Bullet

In the handbook, "section" refers to the first level of categorization below the chapter level, while "subdivisions" are the subsequent levels of breakdown below sections. Section numbering includes the part, chapter, and section number with the part and chapter number separated by a dash (-) and the chapter and section number separated by a period(.) as illustrated above. A new subdivision tier is created only when there are at least two unique categories in that tier. For example, if a chapter contained only one section, it would be prudent to incorporate that chapter into another closely related chapter and make the original chapter one of the sections in the consolidated chapter.

"Bullets" are used for lists of related information where each item in the list is reasonably concise without lengthy explanation, and where no sequence or priority order is required for the bulleted items. Bullets may be used from any subdivision level in the document, i.e., a bullet list may be used from the section level or from any subsequent subdivision level.

- B. Paper Size - Standard paper size for issuances will be 8-1/2 inches by 11 inches. The orientation of the printed text on the page will normally be portrait mode. When landscape mode is required for clarity in presenting information (figures, tables, exhibits, etc.), these pages will be inserted in the handbook such that the data reads (top to bottom) when viewed from the right side of the handbook.
- C. Margins - The default margins are one inch on both the left and right sides. Other settings can be used for figures, tables, and exhibits if required for data to fit on a page. Since the issuances will be hole punched and inserted in binders, every attempt will be made to maintain margins that will prevent data from being lost or obscured.

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The top and bottom margins are set at one-half inch. Because a portion of each page is occupied by the header and footer, the distance available for actual text is about 8-1/2 inches.

- D. Page Numbering - Pages for each "chapter" will be numbered consecutively. The page number will include the part, chapter, and page, with the part and chapter number enclosed by parenthesis ( ) and separated by a dash (-). The page number will be separated from the part and chapter number by a space. For example, this page in Chapter 2 of Part 1 would be (1-2) 7. The automatic page numbering system available on word processing programs provides a convenient method to incorporate page numbering into a document. Page numbers are centered at the bottom of the page.
- (1) Lower case Roman numerals (i, ii, iii, iv, ...) are utilized for page designations occurring before the main body of the document (title page, foreword, abstract, table of contents, acknowledgments, etc.).
  - (2) Arithmetic numbers (1, 2, 3, 4, ...) are utilized for page designations of the main body of the handbook. The first page of each chapter is assigned as page one. Each page number is preceded by the chapter number, for example, 2-12 is page 12 in Chapter 2.
    - a. Portions of the issuance which follow the main body of a chapter (exhibits, tables, etc.) are continued in the same numbering sequence without starting over.
    - b. Most issuances to the handbook will be printed on both sides. The main sections (i.e., chapters, appendices, etc.) within a part will begin on the right side when opened like a book, they will always begin with an odd page number. Because of this, the last pages of some sections may be intentionally left blank.
- E. Headers - Headers are provided as shown in this document. The first header line is the title of the handbook, i.e., "Technical Handbook for Environmental Health and Engineering." The second line of the header is the volume number and volume title, while the third line contains the part number and title of the part.
- F. Footer - The footer contains the date of the issuance (left justified), the page number (centered), and the transmittal notice number (right justified).
- G. Title Page - Each handbook part will have a unique title page. The first line of the title page is the title of the handbook, i.e., "Technical Handbook for Environmental Health and Engineering." The second line is the volume number and volume title, while the third and fourth lines contain the part number and title of the part. The contents of the title page are centered on the page and both the header and footer are suppressed.

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- H. Table of Contents - A table of contents is used to assist the handbook user in locating required information. Two tables of contents will be maintained in the handbook. All issuances will include instructions regarding necessary revisions to these tables of contents resulting from the issuance.
- (1) Part table of contents - A table of contents is provided for each handbook part. It is filed between the cover page and the first chapter of each part. The table of contents normally lists the title of the part, chapters, and subsequent sections thereof. It also lists information which is appended to the Part. Page numbers are provided for all table of contents entries.
  - (2) Master table of contents - The consolidation of the part table of contents for all six volumes results in the master table of contents for the entire handbook. This master index lists only the volume, part, and chapter titles. Page numbers are not listed, because each part is filed behind a separate index tab with the same number. A master table of contents is filed at the beginning of each volume.
- I. Figures, Tables, and Exhibits - Figures, tables, and exhibits present information directly related to the text in a graphical and/or tabular format, or are examples used to illustrate or add to a situation depicted in the main document. When reasonable, these are inserted into the document as close as possible to the relative text. When the data is extremely lengthy, i.e., a model document or a series of tables, it should be located at the end of the appropriate chapter.
- J. Other Settings
- Left justification only.
  - Widow/orphan protection is active.
  - Line spacing is one.
  - Tabs are set at ½ inch intervals.
  - Initial base font is 11 point Courier.